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SUCCESS STORY

Arab Aluminum Industries Co. Ltd (ARAL) Conserves Water and Energy

Facility reduces wastewater treatment costs by 30%.

Boiler pipes are now insulated.

ARAL Plant Manager Eng. Ramzi Abu Surour said, "USAID's assistance helped us use less diesel fuel and less water, thus reducing wastewater treatment costs. We are thrilled to see the substantial impacts to our bottom line!"

By investing in pollution prevention improvements, Arab Aluminum Industries Co. Ltd (ARAL) in Ein Al Basha, Amman achieved a 30% reduction in both diesel consumption and wastewater treatment costs.

Established in 1976 and employing approximately 270 workers, the facility produces aluminum profiles. Its operations include extrusion, anodizing, powder coating and decoration. Water and energy are major resources.

ARAL had worked with USAID to prepare a pollution prevention plan. One suggestion was to service and/or replace the facility's three steam boilers, to increase efficiency. ARAL replaced two 3.2-ton steam boilers with two 1.5-ton steam boilers and removed a third boiler from service. Annual consumption of diesel fuel has fallen by more than 249,000 liters.

Other suggested changes to the management and use of chemicals in the factory's process (including reducing drag-out) will save 5 m^3 of water for each ton of product produced. This in turn reduces the amount of sludge waste generated and reduces wastewater treatment costs by 30%.

ARAL plans to follow up these improvements with a monitoring process, looking at water balances and water demand management in its facility. With detailed unit-specific usage data, the facility will be able to target areas where the most significant improvement and savings can be gained. Plant Manager Eng. Ramzi Abu Surour concludes: "With USAID's assistance, we have achieved the drive and momentum to renovate and improve our operations and the units used in our processes."

Arab Aluminum Industries Co. Ltd (ARAL) in Ein Al Basha, Amman, is one of 30 industrial partners working with USAID to reduce industrial pollution and conserve scarce water and energy resources – in ways that benefit the bottom line. The Water Reuse and Environmental Conservation Project examined water and energy use, material and waste flow, production processes, quality control, and other aspects of each facility's operations. The assessments suggested options for minimizing pollution and saving water, energy, and money. Costs and payback periods for options were also analyzed.